

EPA Region 10 Photolog -- DRAFT

Clean Air Act (CAA) Site Visit

Sumitomo Metal Mining Pogo LLC – near Delta Junction, AK

Dates: September 28-30, 2013

All photographs depicted in this photolog were taken September 28-30, 2013 at the times indicated below by Zach Hedgpeth of EPA Region 10 using a Panasonic DMC-TZ5 digital camera. Times indicated are Pacific Daylight Time. Local Alaska time is one hour earlier.

All photos have been resized for use in this photolog, and some photos have been rotated.

Photo P1000014.jpg

Taken 9/28/13 – 17:06

Description:

“Dry Stack” mine waste pile filling valley adjacent to Pogo Mine. View across the valley.



Photo P1000015.jpg

Taken 9/28/13 – 17:09

Description:

“Dry Stack” mine waste pile filling valley adjacent to Pogo Mine. View down the valley towards the mine.



Photo P1000016.jpg

Taken 9/28/13 – 17:09

Description:

“Dry Stack” mine waste pile filling valley adjacent to Pogo Mine. View down the valley towards the mine.



Photo P1000017.jpg

Taken 9/28/13 – 17:10

Description:

“Dry Stack” mine waste pile filling valley adjacent to Pogo Mine. View down the valley towards the mine with adjacent wooded hillside.



Photo P1000018.jpg

Taken 9/28/13 – 17:13

Description:

“Dry Stack” mine waste pile filling valley adjacent to Pogo Mine. View down the valley towards the mine.



Photo P1000019.jpg

Taken 9/28/13 – 17:34

Description:

Lower entrance to underground mine chambers.



Photo P1000020.jpg

Taken 9/28/13 – 17:34

Description:

Lower entrance to underground mine chambers.



Photo P1000021.jpg

Taken 9/28/13 – 17:59

Description:
Lower entrance to underground mine chambers.



Photo P1000022.jpg

Taken 9/29/13 – 9:40

Description:
Pogo incinerator building.



Photo P1000023.jpg

Taken 9/29/13 – 9:41

Description:
Pogo incinerator building with propane tank.



Photo P1000024.jpg

Taken 9/29/13 – 9:42

Description:
Pogo incinerator propane tank.



Photo P1000027.jpg¹

Taken 9/29/13 – 9:45

Description:
Pogo incinerator view from lower
internal loading dock area within
building.



¹ Photos P1000025.jpg and P1000026.jpg were non-project photos.

Photo P1000028.jpg

Taken 9/29/13 – 10:24

Description:
Man-lift accessing Pogo incinerator
stack.



Photo P1000029.jpg

Taken 9/29/13 – 10:24

Description:
USEPA Reference Method 5 box.



Photo P1000030.jpg

Taken 9/29/13 - 10:25

Description:
USEPA Reference Method 5 box
closeup.



Photo P1000031.jpg

Taken 9/29/13 - 10:43

Description:
Bags of waste staged for loading into
the incinerator, which is located to
the left out of this photo.



Photo P1000032.jpg

Taken 9/29/13 – 10:44

Description:

Incinerator waste loading hopper. Ram chamber is positioned directly behind the loading hopper, while the primary combustion chamber is visible to the right behind the chain link fence.



Photo P1000033.jpg

Taken 9/29/13 – 10:54

Description:

Incinerator control display screen.

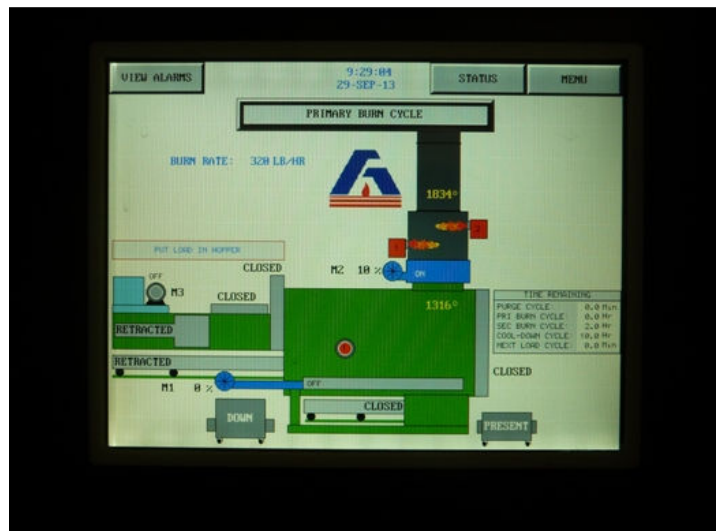


Photo P1000034.jpg

Taken 9/29/13 – 10:55

Description:
Incinerator waste loading hopper
with scale.



Photo P1000035.jpg

Taken 9/29/13 – 10:55

Description:
Incinerator waste loading scale
display.

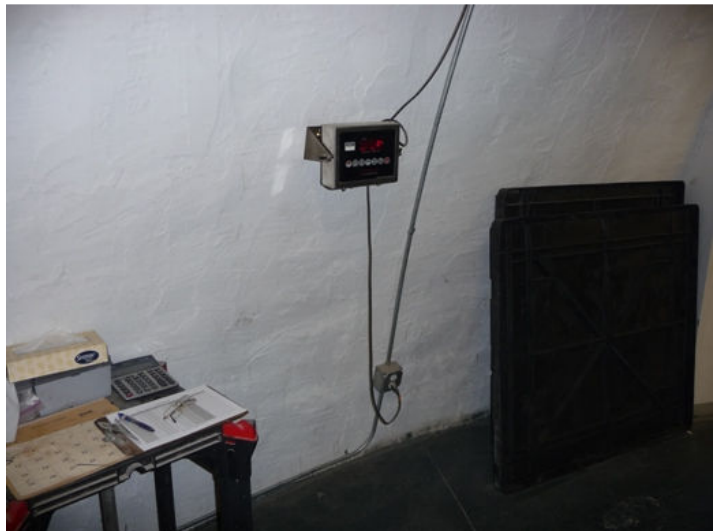


Photo P1000036.jpg

Taken 9/29/13 – 10:56

Description:
Bag of waste rags (oily absorbent
materials) staged for combustion in
the incinerator.



Photo P1000037.jpg

Taken 9/29/13 – 10:56

Description:
Bag of wastewater treatment plant
sludge staged for combustion in the
incinerator.



Photo P1000038.jpg

Taken 9/29/13 – 11:02

Description:
Manufacturer's label on incinerator.
"Advanced Combustion".



Photo P1000039.jpg

Taken 9/29/13 – 11:02

Description:
Primary combustion chamber burner
and propane supply line with valve.



Photo P1000040.jpg

Taken 9/29/13 - 11:03

Description:
Secondary combustion chamber
burner (1 of 2) and blower.

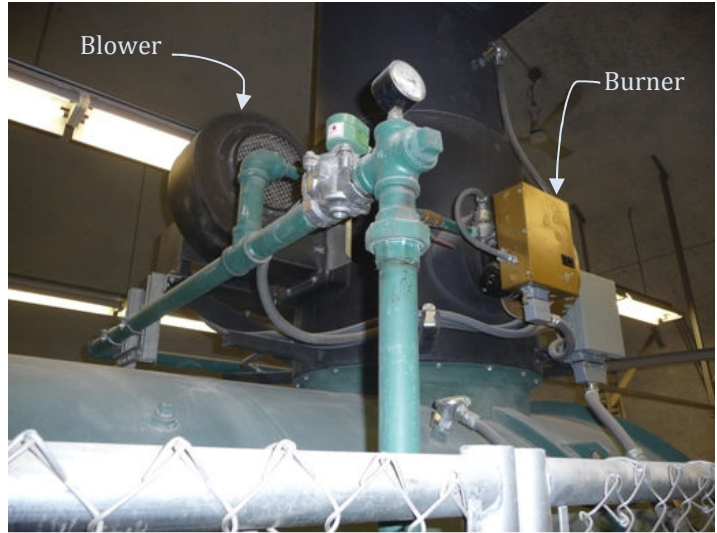


Photo P1000041.jpg

Taken 9/29/13 - 11:03

Description:
Primary combustion chamber
blower, located beneath charge ram.



Photo P1000042.jpg

Taken 9/29/13 - 11:04

Description:
Primary combustion chamber blower
injection point (1 of 2).

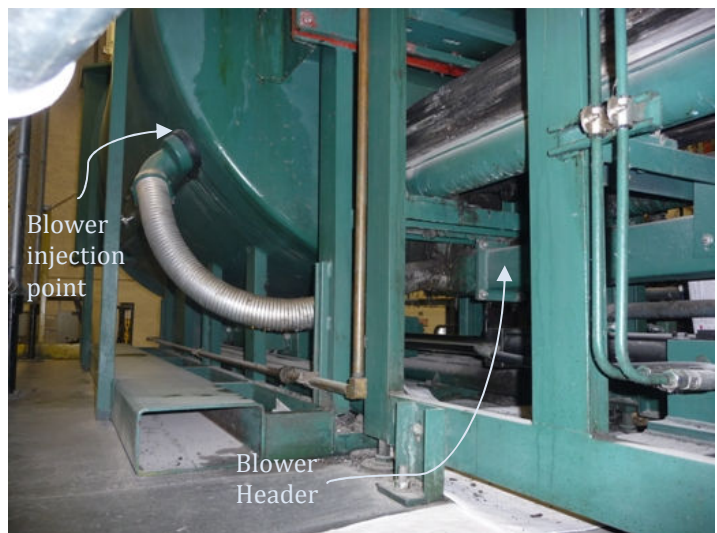


Photo P1000043.jpg

Taken 9/29/13 - 11:05

Description:
Primary combustion chamber blower
injection point (2 of 2).

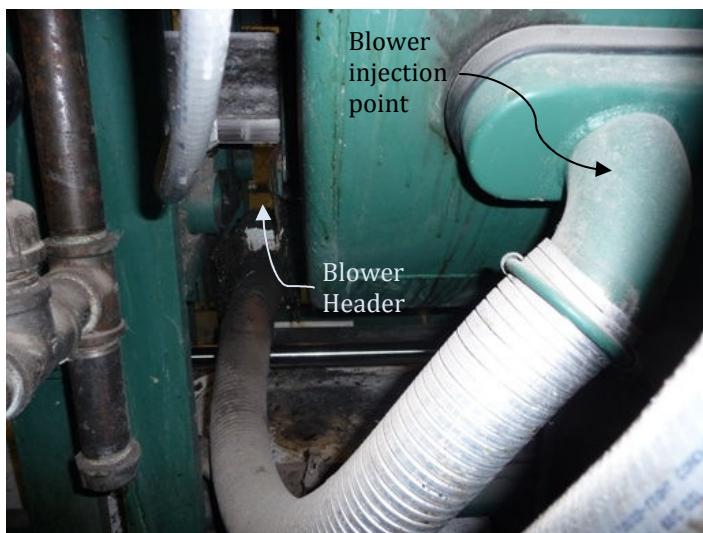


Photo P1000044.jpg

Taken 9/29/13 - 11:06

Description:
Secondary combustion chamber
blower and burner (2 of 2).

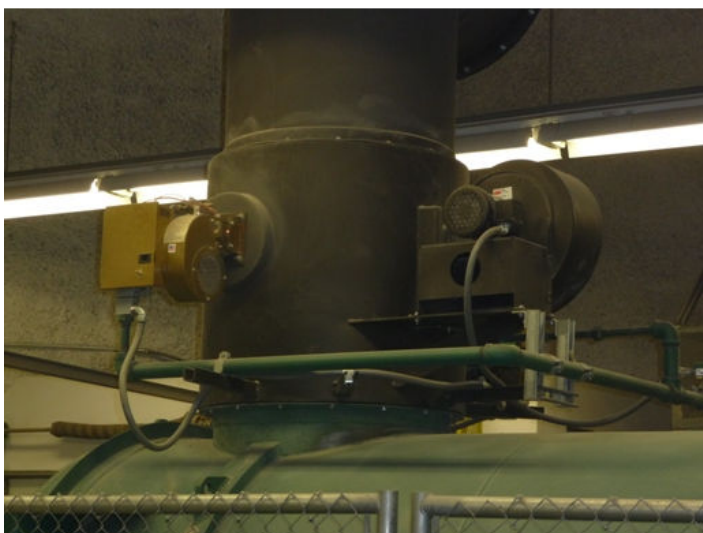


Photo P1000047.jpg²

Taken 9/29/13 – 11:44

Description:
Impinger box.



Photo P1000048.jpg

Taken 9/29/13 – 11:44

Description:
Impinger box. The testers prepared two sets of testing equipment prior to fieldwork each day in an attempt to minimize turn-around time between test runs.



² P1000045.mov is a 30-second video clip showing smoke escaping from the ash chute below the incinerator primary combustion chamber. This video is available on the disk containing the inspection report and appendices in the facility project file. Photo 46 was a very short video taken by mistake when the inspector forgot to switch the camera settings following the collection of P1000045.mov and has been deleted.

Photo P1000049.jpg

Taken 9/29/13 – 11:45

Description:
AECOM testing staff feed one-piece quartz sample liner into sampling probe, with help from Ben Farnham of Pogo Mine.



Photo P1000050.jpg

Taken 9/29/13 – 11:47

Description:
Continued feeding of quartz sample liner into sampling probe.



Photo P1000051.jpg

Taken 9/29/13 – 11:51

Description:
One-piece quartz sample liner successfully inserted into sampling probe.



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Photo P1000052.jpg

Taken 9/29/13 - 11:59

Description:
Man lift with testing gear.



Photo P1000053.jpg

Taken 9/29/13 - 12:01

Description:
Insertion of sampling probe into
heated filter box.



Photo P1000054.jpg

Taken 9/29/13 - 12:20

Description:

First waste charge loaded in hopper.



Photo P1000055.jpg

Taken 9/29/13 - 12:22

Description:

First waste charge weight (37 pounds).



Photo P1000056.jpg

Taken 9/29/13 – 12:32

Description:
Opacity immediately following first
waste charge to warmed up
incinerator.



Photo P1000057.jpg

Taken 9/29/13 – 12:33

Description:
Opacity immediately following first
waste charge to warmed up
incinerator.



Photo P1000058.jpg

Taken 9/29/13 – 12:33

Description:
Plume opacity beginning to decrease
shortly after first waste charge.



Photo P1000059.jpg

Taken 9/29/13 – 12:36

Description:

Plume opacity beginning to decrease shortly after first waste charge.



Photo P1000060.jpg

Taken 9/29/13 – 12:50

Description:

Incinerator control screen, Method 5, Run 1, 2nd waste charge.



Photo P1000061.jpg

Taken 9/29/13 - 13:00

Description:
Method 5 box, Run "I5-1".



Photo P1000062.jpg

Taken 9/29/13 - 13:01

Description:
Stack temperature gauge.



Photo P1000063.jpg

Taken 9/29/13 – 13:04

Description:
AECOM log sheet for Run "I5-1".

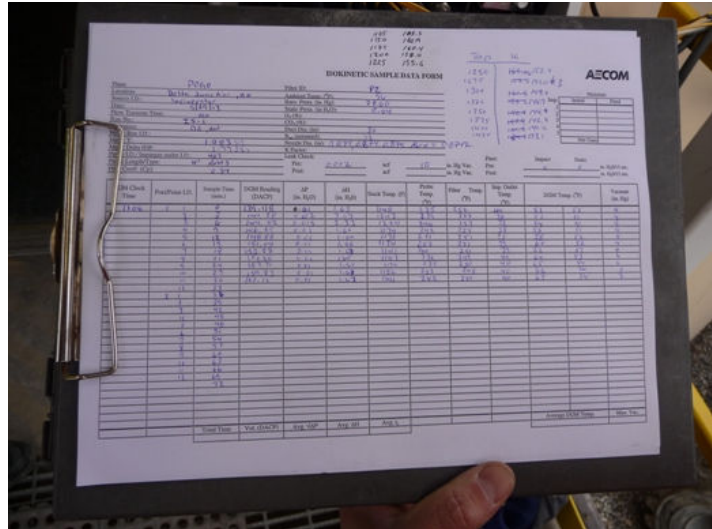


Photo P1000064.jpg

Taken 9/29/13 – 13:41

Description:
View of stack showing low opacity.



Photo P1000065.jpg

Taken 9/29/13 – 13:41

Description:
View of stack showing low opacity.



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Photo P1000066.jpg

Taken 9/29/13 – 14:13

Description:
Mike Short waste tracking
spreadsheet, during Run "I5-1".

Photo P1000067.jpg

Taken 9/29/13 – 14:14

Description:
Incinerator operator waste loading
log sheet, Run "I5-1".

Photo P1000068.jpg

Taken 9/29/13 – 14:14

Description:
Incinerator operator 5-minute data
collection sheet, Run "I5-1".

Photo P1000069.jpg

Taken 9/29/13 – 14:56

Description:
Broken quartz nozzle.



Photo P1000070.jpg

Taken 9/29/13 – 15:39

Description:
Test probe on man lift, Run "I29-1".



Photo P1000071.jpg

Taken 9/29/13 – 15:39

Description:
Test probe on man lift, Run "I29-1".



Photo P1000072.jpg

Taken 9/29/13 – 16:29

Description:

Gaseous pollutant display screen,
Run "I29-1" with flash.

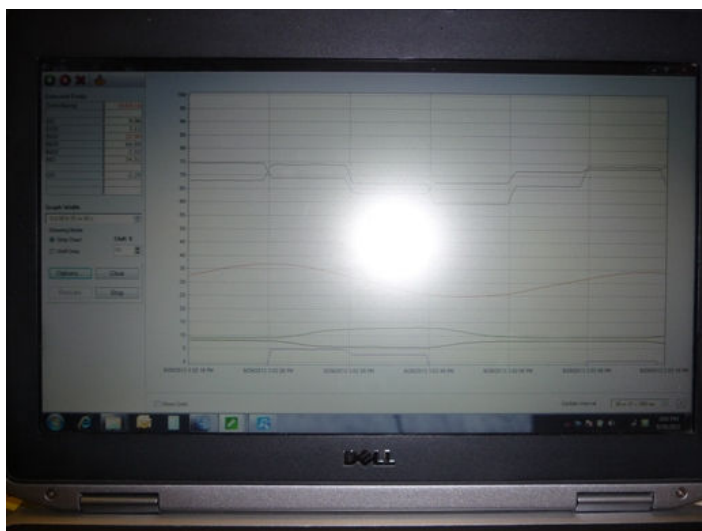


Photo P1000073.jpg

Taken 9/29/13 – 16:29

Description:

Gaseous pollutant display screen,
Run "I29-1" without flash.

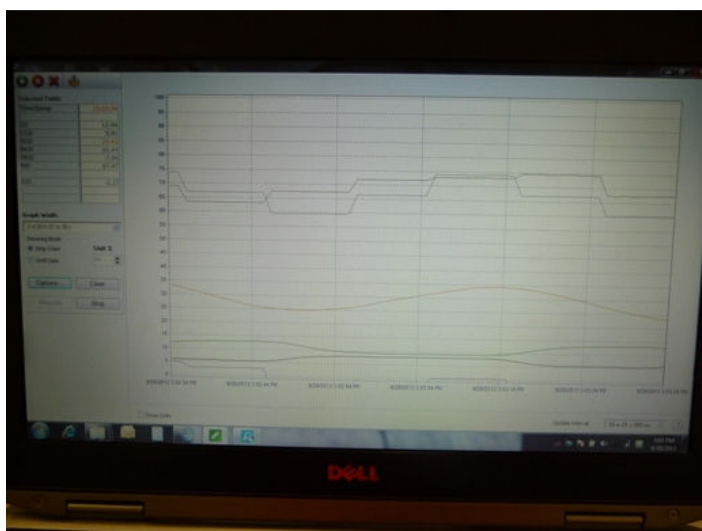


Photo P1000074.jpg

Taken 9/29/13 – 16:33

Description:

Gaseous analyzer boxes.



Photo P1000075.jpg

Taken 9/29/13 - 16:34

Description:
Close-up of O₂, CO₂, boxes, without
flash.



Photo P1000076.jpg

Taken 9/29/13 - 16:34

Description:
Close-up of O₂, CO₂, boxes, with flash.



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Photo P1000077.jpg

Taken 9/29/13 – 16:34

Description:

Close-up of CO, SO₂, and NO_x boxes.



Photo P1000078.jpg

Taken 9/29/13 – 17:17

Description:

AECOM log sheet for Run "I29-1".

Time	Flow Rate (L/min)	CO (ppm)	SO ₂ (ppm)	NO (ppm)	NO ₂ (ppm)	NO _x (ppm)
17:17	10	100	10	10	10	10
17:18	10	100	10	10	10	10
17:19	10	100	10	10	10	10
17:20	10	100	10	10	10	10
17:21	10	100	10	10	10	10
17:22	10	100	10	10	10	10
17:23	10	100	10	10	10	10
17:24	10	100	10	10	10	10
17:25	10	100	10	10	10	10
17:26	10	100	10	10	10	10
17:27	10	100	10	10	10	10
17:28	10	100	10	10	10	10
17:29	10	100	10	10	10	10
17:30	10	100	10	10	10	10
17:31	10	100	10	10	10	10
17:32	10	100	10	10	10	10
17:33	10	100	10	10	10	10
17:34	10	100	10	10	10	10
17:35	10	100	10	10	10	10
17:36	10	100	10	10	10	10
17:37	10	100	10	10	10	10
17:38	10	100	10	10	10	10
17:39	10	100	10	10	10	10
17:40	10	100	10	10	10	10
17:41	10	100	10	10	10	10
17:42	10	100	10	10	10	10
17:43	10	100	10	10	10	10
17:44	10	100	10	10	10	10
17:45	10	100	10	10	10	10
17:46	10	100	10	10	10	10
17:47	10	100	10	10	10	10
17:48	10	100	10	10	10	10
17:49	10	100	10	10	10	10
17:50	10	100	10	10	10	10
17:51	10	100	10	10	10	10
17:52	10	100	10	10	10	10
17:53	10	100	10	10	10	10
17:54	10	100	10	10	10	10
17:55	10	100	10	10	10	10
17:56	10	100	10	10	10	10
17:57	10	100	10	10	10	10
17:58	10	100	10	10	10	10
17:59	10	100	10	10	10	10
18:00	10	100	10	10	10	10

Photo P1000079.jpg

Taken 9/29/13 – 18:00

Description:
Heated filter box followed by spiral
condenser and impingers, per
Method 23.

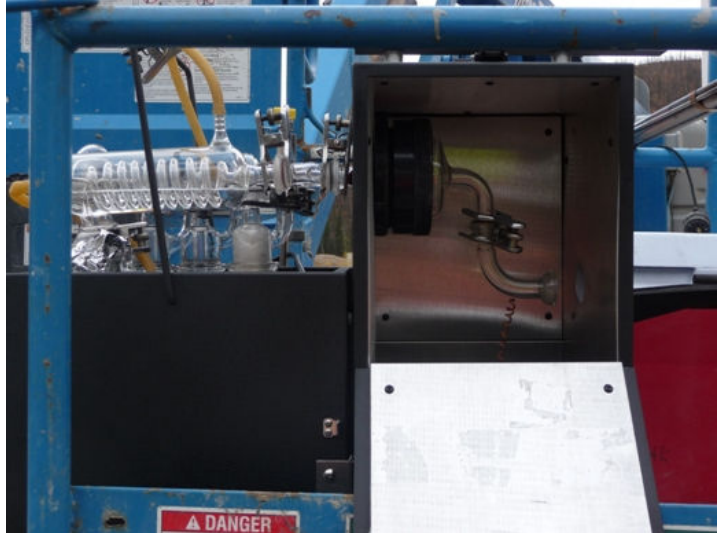


Photo P1000080.jpg

Taken 9/29/13 – 19:24

Description:
View of stack exhaust during Run
“I23-1” showing zero opacity.



Photo P1000081.jpg

Taken 9/29/13 – 19:29

Description:
Incinerator control screen, Run “I23-1”.



Photo P1000082.jpg

Taken 9/29/13 – 20:16

Description:
Incinerator operator waste loading
log sheet, Run "I23-1".

Time	Type of Trash	Size	Weight	Moisture	Temperature	Notes
11:27	3	3	2.9	1	18.0	
11:28	3	3	2.9	1	18.0	
11:29	3	3	2.9	1	18.0	
11:30	3	3	2.9	1	18.0	
11:31	3	3	2.9	1	18.0	
11:32	3	3	2.9	1	18.0	
11:33	3	3	2.9	1	18.0	
11:34	3	3	2.9	1	18.0	
11:35	3	3	2.9	1	18.0	
11:36	3	3	2.9	1	18.0	
11:37	3	3	2.9	1	18.0	
11:38	3	3	2.9	1	18.0	
11:39	3	3	2.9	1	18.0	
11:40	3	3	2.9	1	18.0	
11:41	3	3	2.9	1	18.0	
11:42	3	3	2.9	1	18.0	
11:43	3	3	2.9	1	18.0	
11:44	3	3	2.9	1	18.0	
11:45	3	3	2.9	1	18.0	
11:46	3	3	2.9	1	18.0	
11:47	3	3	2.9	1	18.0	
11:48	3	3	2.9	1	18.0	
11:49	3	3	2.9	1	18.0	
11:50	3	3	2.9	1	18.0	
11:51	3	3	2.9	1	18.0	
11:52	3	3	2.9	1	18.0	
11:53	3	3	2.9	1	18.0	
11:54	3	3	2.9	1	18.0	
11:55	3	3	2.9	1	18.0	
11:56	3	3	2.9	1	18.0	
11:57	3	3	2.9	1	18.0	
11:58	3	3	2.9	1	18.0	
11:59	3	3	2.9	1	18.0	
12:00	3	3	2.9	1	18.0	

Photo P1000083.jpg

Taken 9/29/13 – 20:16

Description:
Mike Short waste tracking
spreadsheet, Run "I23-1".

Date	Time	Type of Trash	Size	Weight	Moisture	Temperature	Notes
9/29/13	11:27	3	3	2.9	1	18.0	
9/29/13	11:28	3	3	2.9	1	18.0	
9/29/13	11:29	3	3	2.9	1	18.0	
9/29/13	11:30	3	3	2.9	1	18.0	
9/29/13	11:31	3	3	2.9	1	18.0	
9/29/13	11:32	3	3	2.9	1	18.0	
9/29/13	11:33	3	3	2.9	1	18.0	
9/29/13	11:34	3	3	2.9	1	18.0	
9/29/13	11:35	3	3	2.9	1	18.0	
9/29/13	11:36	3	3	2.9	1	18.0	
9/29/13	11:37	3	3	2.9	1	18.0	
9/29/13	11:38	3	3	2.9	1	18.0	
9/29/13	11:39	3	3	2.9	1	18.0	
9/29/13	11:40	3	3	2.9	1	18.0	
9/29/13	11:41	3	3	2.9	1	18.0	
9/29/13	11:42	3	3	2.9	1	18.0	
9/29/13	11:43	3	3	2.9	1	18.0	
9/29/13	11:44	3	3	2.9	1	18.0	
9/29/13	11:45	3	3	2.9	1	18.0	
9/29/13	11:46	3	3	2.9	1	18.0	
9/29/13	11:47	3	3	2.9	1	18.0	
9/29/13	11:48	3	3	2.9	1	18.0	
9/29/13	11:49	3	3	2.9	1	18.0	
9/29/13	11:50	3	3	2.9	1	18.0	
9/29/13	11:51	3	3	2.9	1	18.0	
9/29/13	11:52	3	3	2.9	1	18.0	
9/29/13	11:53	3	3	2.9	1	18.0	
9/29/13	11:54	3	3	2.9	1	18.0	
9/29/13	11:55	3	3	2.9	1	18.0	
9/29/13	11:56	3	3	2.9	1	18.0	
9/29/13	11:57	3	3	2.9	1	18.0	
9/29/13	11:58	3	3	2.9	1	18.0	
9/29/13	11:59	3	3	2.9	1	18.0	
9/29/13	12:00	3	3	2.9	1	18.0	

Photo P1000084.jpg

Taken 9/29/13 – 20:17

Description:
AECOM 5-minute test data collection
sheet, Run "I23-1".

Date	Time	Type of Trash	Size	Weight	Moisture	Temperature	Notes
9/29/13	11:27	3	3	2.9	1	18.0	
9/29/13	11:28	3	3	2.9	1	18.0	
9/29/13	11:29	3	3	2.9	1	18.0	
9/29/13	11:30	3	3	2.9	1	18.0	
9/29/13	11:31	3	3	2.9	1	18.0	
9/29/13	11:32	3	3	2.9	1	18.0	
9/29/13	11:33	3	3	2.9	1	18.0	
9/29/13	11:34	3	3	2.9	1	18.0	
9/29/13	11:35	3	3	2.9	1	18.0	
9/29/13	11:36	3	3	2.9	1	18.0	
9/29/13	11:37	3	3	2.9	1	18.0	
9/29/13	11:38	3	3	2.9	1	18.0	
9/29/13	11:39	3	3	2.9	1	18.0	
9/29/13	11:40	3	3	2.9	1	18.0	
9/29/13	11:41	3	3	2.9	1	18.0	
9/29/13	11:42	3	3	2.9	1	18.0	
9/29/13	11:43	3	3	2.9	1	18.0	
9/29/13	11:44	3	3	2.9	1	18.0	
9/29/13	11:45	3	3	2.9	1	18.0	
9/29/13	11:46	3	3	2.9	1	18.0	
9/29/13	11:47	3	3	2.9	1	18.0	
9/29/13	11:48	3	3	2.9	1	18.0	
9/29/13	11:49	3	3	2.9	1	18.0	
9/29/13	11:50	3	3	2.9	1	18.0	
9/29/13	11:51	3	3	2.9	1	18.0	
9/29/13	11:52	3	3	2.9	1	18.0	
9/29/13	11:53	3	3	2.9	1	18.0	
9/29/13	11:54	3	3	2.9	1	18.0	
9/29/13	11:55	3	3	2.9	1	18.0	
9/29/13	11:56	3	3	2.9	1	18.0	
9/29/13	11:57	3	3	2.9	1	18.0	
9/29/13	11:58	3	3	2.9	1	18.0	
9/29/13	11:59	3	3	2.9	1	18.0	
9/29/13	12:00	3	3	2.9	1	18.0	

Photo P1000085.jpg

Taken 9/29/13 – 21:04

Description:
Probe with quartz nozzle with
attached heater and hot glove.



Photo P1000086.jpg

Taken 9/29/13 – 21:04

Description:
Probe with quartz nozzle with
attached heater and hot glove.



Photo P1000087.jpg

Taken 9/29/13 – 21:20

Description:
Incinerator control screen following
the end of Run "I23-1".



Photo P1000088.jpg

Taken 9/29/13 – 21:33

Description:
Quartz nozzle in probe following Run
"123-1".



Photo P1000089.jpg

Taken 9/30/13 – 10:07

Description:
Incinerator control screen prior to
first waste charge of the day.



Photo P1000090.jpg

Taken 9/30/13 – 10:49

Description:
Incinerator stack following first
waste charge of the day, exhibiting
very low opacity.



Photo P1000091.jpg

Taken 9/30/13 – 11:32

Description:
WWTP sludge.



Photo P1000092.jpg

Taken 9/30/13 – 11:54

Description:
Incinerator operator log sheet, Run "I23-2".

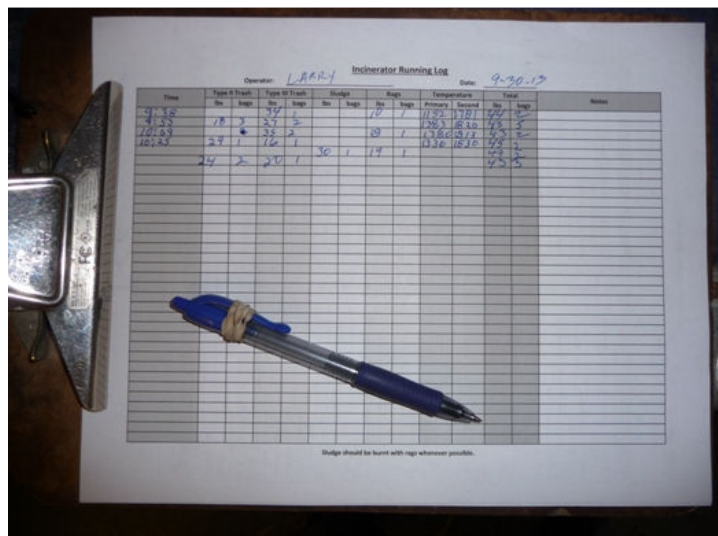


Photo P1000093.jpg

Taken 9/30/13 – 11:55

Description:
Incinerator control screen, Run "I23-2".



